

- c. synthesizing a vaccine oligopeptide, the vaccine oligopeptide having amino acid sequences corresponding to the amino acid sequences of the signal oligopeptides of maximum hydrophilicity.
2. (Amended) The method of claim 1 further comprising a method of identifying a signal oligopeptide sequence within the structure of the disease causing protein, the signal oligopeptide representing the amino acid sequence of maximum surface probability of the amino acids in the disease causing protein.
 3. (Amended) The method of claim 1 further comprising a method of identifying a signal oligopeptide sequence within the structure of the disease causing protein, the signal oligopeptide representing the amino acid sequence of maximum electrical charge of the amino acids in the disease causing protein.
 4. (Amended) The method of claim 1 further comprising an evolutionary comparison method, wherein a species of animals in an evolutionary chain is selected to produce a different vaccine oligopeptide to the same disease causing protein.
 5. (Amended) The method of claim 1 further comprising an optimization step, wherein the vaccine oligopeptide is manipulated through an amino acid residue substitution, amino acid deletion, or amino acid insertion, or any combination thereof, to produce an optimized immunogenic response in vaccinated humans.
 - β^1 6. (Amended) The method of claim 1 wherein the immunogenic response of the vaccine oligopeptide in humans is enhanced by repetition of the vaccine oligopeptides to form a linear polypeptide.
 7. (Amended) The method of claim 1 wherein the immunogenic response of the vaccine oligopeptide in humans is enhanced by repetition of the vaccine oligopeptide to form a cyclic polypeptide.
 8. (Amended) The method of claim 1 wherein the immunogenic response of the vaccine oligopeptides in humans is enhanced by coupling of a vaccine oligopeptide to an immunogenic protein or non-protein haptens.
 9. (Amended) The method of claim 1 wherein the area of maximum hydrophilicity is identified by a hydrophilicity determining algorithm.
 10. (Amended) A method of producing therapeutic peptides as vaccines in the prevention of human disease caused by a protein, the method comprising:
 - a. identifying a protein responsible for causing human disease;
 - b. identifying a signal oligopeptide sequence within the structure of the disease causing protein, the signal oligopeptide representing the amino acid sequences of maximum electrical charge of the protein; and